SUMMARY

The primary aim of the study was to investigate the influence of cigarette smoking on periodontitis in Czech population. The secondary aim was to compare the results with those from Indian population, where the differences in culture and race, socioeconomic status, oral hygiene measures and practices, and the use of tobacco in different forms like chewing tobacco and smoking bidi in India would have an impact on the final outcome of the study.

The participants of this study were patients of dentists cooperating with the study. The inclusion criterion was age between 30-69 years. Two different sets of questionnaires were prepared; one for the Czech study population (in Czech language) and the other, with minor variations, for the Indian study population (in English). All participants of this study were requested to answer the questionnaire which included questions concerning their personal history, economic status, educational qualification, profession, general health status, food habits, frequency of dental visit, brushing habits, dental aids used and a detailed tobacco consumption history. Information collected on use of tobacco included current tobacco consumption status, duration and amount of tobacco use and form of tobacco use in case of Indian population. Possible forms of tobacco consumption in India that were considered in this study were: 1) tobacco with betel nuts and leaves, 2) tobacco alone, 3) bidi/chutta 4) cigarettes without filters, 5) cigarettes with filters, and 6) pipes and other forms. In case of cigarette or bidi/chutta smokers, they were classified into: 1) regular smokers 2) occasional smokers and 3) ex-smokers. Since the use of smokeless tobacco, mostly in the form of chewing tobacco is prevalent in India, we further classified the Indian study population into 'consumers but non-smokers' and 'non-consumers'. Consumers but non-smokers consisted of subjects who use tobacco in forms other than smoking and non-consumers consisted of subjects who never used tobacco (at the time of study or in the past) in any form. In case of Czech study population, the mode of tobacco consumption most prevalent was smoking in different forms like cigarettes, pipes and cigars.

The examiners in India and Czech Republic used a standard examination environment, standard equipment and followed detailed written instructions. Periodontal status of the respondents was assessed using CPITN index .

The Indian study population consisted of 580 males (72 %) and 225 females (28 %). The majority of respondents were male-consumers of tobacco. Among regular smokers, 98 % were males and among non-consumers 73.2 % were females. The percentage of female

Consumers had a higher percentage of CPITN scores 2, 3 and 4 compared to non-consumers. Non-consumers also had a higher percentage of CPITN score 1 compared to consumers.

The Czech study population consisted of 339 males (49.9 %) and 340 females (50.1 %). Among regular smokers, 60.3 % were males and among non-smokers, 58.9 % were females. Except sex, all other variables like age, education, preventive dental visits, brushing frequency and smoking habits significantly influenced the maximum CPITN (%) outcome. Taking the CPITN scores in percentage of smokers and non-smokers in all sextants, non-smokers had higher percentage of healthy periodontium compared to smokers, smokers had lesser percentage of sites with bleeding on probing and higher percentage of sites with pocketing compared to non-smokers.

Comparison between percentage of scores according to CPITN categories of Czech and Indian population revealed that the Indian study population had a higher percentage of CPITN scores 0, 1 and 2 indicating healthy periodontium, bleeding on probing and supra-gingival or sub-gingival calculus respectively and a lower percentage of CPITN scores 3 and 4 indicating pocket depths up to 4-5 mm and 6 mm or more respectively compared to Czech study population.